

MIGRATION: MYSTERIOUS TRAVELS WITHOUT GPS

How wonderful it would be to travel to different parts of the world at different times of the year, and that too all for free! Sounds unbelievable, right?! But some creatures are so lucky they travel or migrate in groups with their family quite in this manner. Of course, they have to work very hard to swim, trek or fly these distances which could sometimes be thousands of miles. The need to travel to their destination is so great that sometimes these animals risk harsh terrains, weather, exhaustion, and even dangerous predators.

What is migration? Migration is the seasonal movement of groups of animals from one region to another. This can be a relatively short distance like across a valley, or can involve travelling thousands of kilometers across the world from pole to pole. Animals do this for various reasons - to mate, to find climates they are better suited to, or to find food, for example.

How do migratory animals find their way? Humans often depend on a GPS system like Google maps to find our way from point A to point B. But how do animals do this and especially over long distances? This mind-boggling mystery has held the interest of scientists for many years. Animals have their very own internal GPS-like system that tells them the direction they need to move in to get exactly where they need to go.

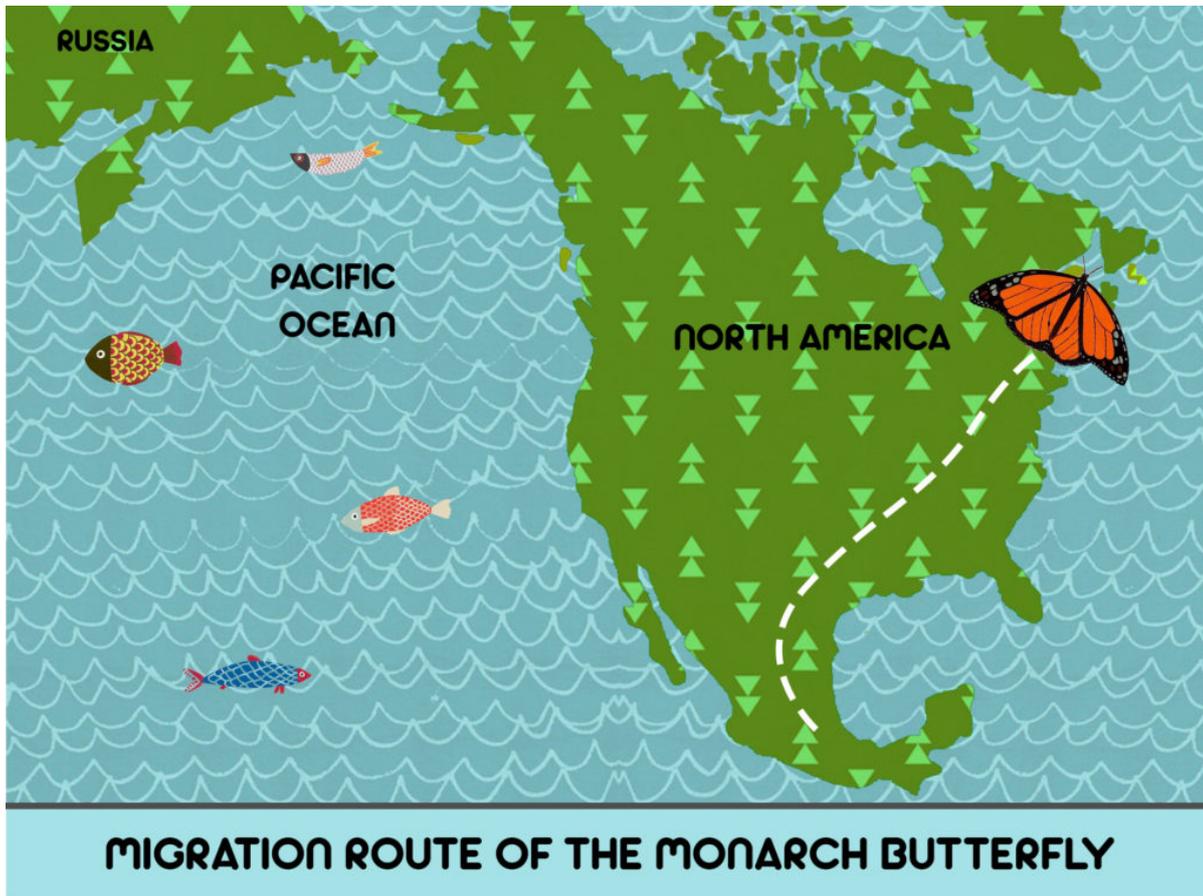
They use cues like:

- the **movement of the sun**
- the **patterns of the stars**
- **an instinct that is influenced by the magnetic forces of the earth's poles**, and
- **polarised light**. This is a special type of light wave which creates patterns in the sky. These patterns stay constant even though the sun moves across the sky. Animals can sense the position of the sun based on the pattern of this polarised light and know the direction they need to move in.

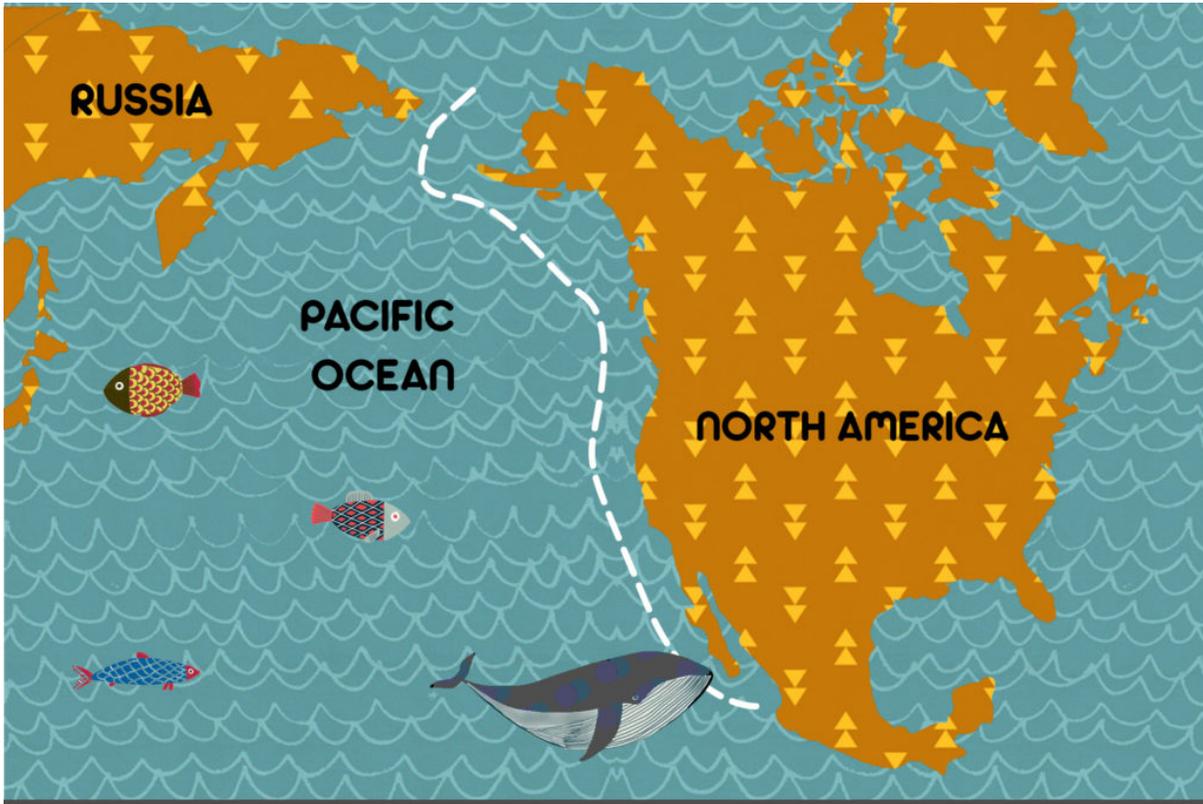
Different creatures adopt different methods or combinations of some of these methods to guide them. How absolutely incredible this is!

So who are these phenomenal migrating creatures? Birds being the most visible travellers, are noticed the most as migrators. Even in cities we might often see huge flocks of unusual birds flying overhead or some new birds appearing at our window during these months. But birds are not the only creatures that migrate.

Some champion migrators include:



The **Monarch butterfly**, which migrates over 3,500 kms to breed. Can you believe thousands of these butterflies travel in a group all across North America once a year? **Fun Fact:** It isn't the same butterfly that makes the journey the next year. It is the next generation of the butterfly that flies exactly in the same path. Now that is some great sense of direction!



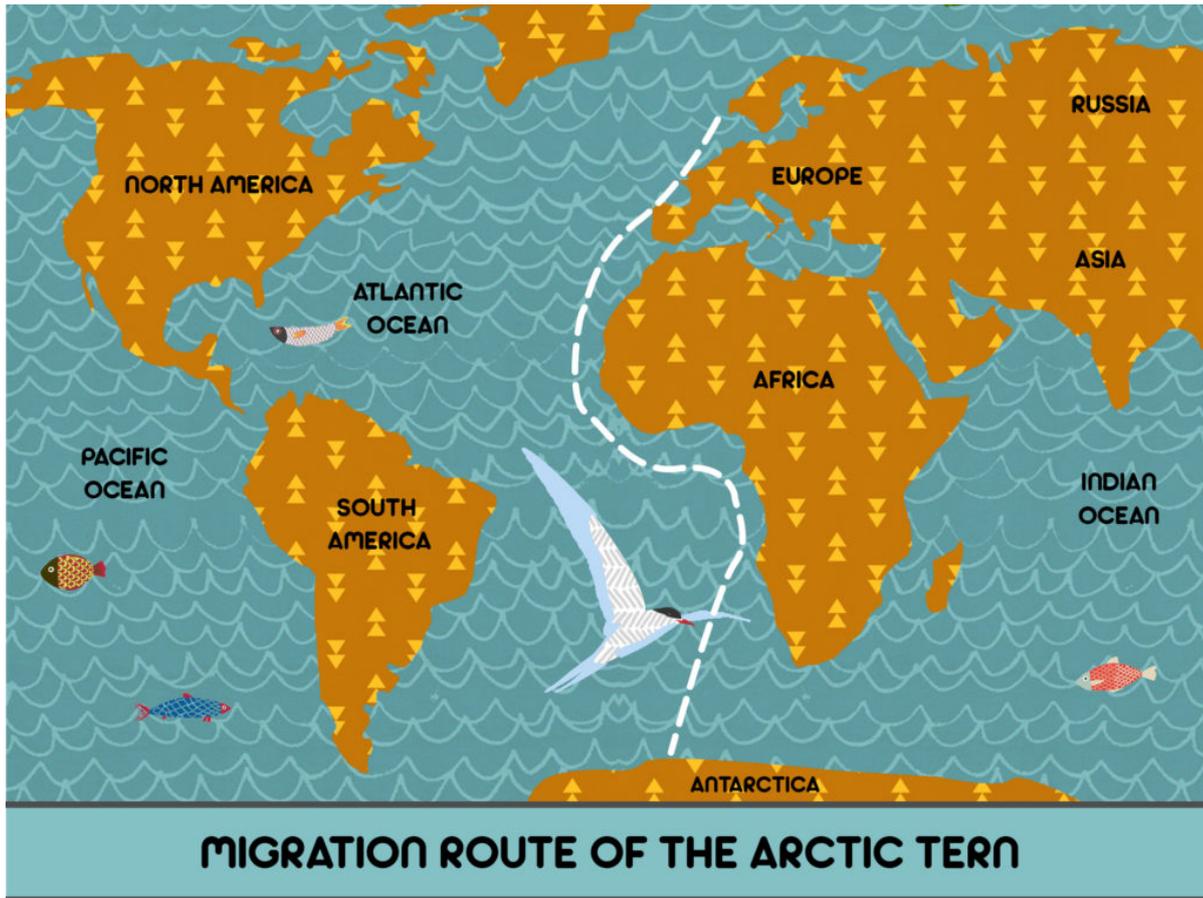
MIGRATION ROUTE OF THE GRAY WHALE

Some other famous migrators are different species of whales that migrate for various reasons like feeding and mating.
Fun Fact: Humpback whales migrate approximately 5,000 km on average.



MIGRATION ROUTE OF THE LEATHERBACK SEA TURTLE

leatherback sea turtle is among the most highly migratory animals on earth. **Fun Fact: It travels over 15,000 kms each year in search of jellyfish to feed on.**



The **Arctic tern**, which is a tiny little bird, has the longest migratory path in the animal kingdom. **Fun Fact: The Arctic tern travels 71,000 kilometres a year, from the north pole to south pole and back.** This one seems to be quite the champion!



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